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THREE CASES

OF

EARLY TUBAL GESTATION

SUCCESSFULLY TREATED BY

ABDOMINAL SECTION,

TWO OF THE CASES AFTER, AND ONE BEFORE, RUPTURE OF THE TUBE.

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The subject of tubal gestation has recently been surrounded with fresh interest by the new light thrown on its pathology. It is now known that the condition is much more common than it has hitherto been supposed to be, and that many of the lives sacrificed, from the accidents to which it is liable in all its stages, might have been saved by the timely interference that a fuller knowledge would have ensured. Its early detection is now, therefore, a matter of, in the strictest sense, vital importance, and it becomes a duty to record any cases that are likely to assist in rendering such detection easy. The three here given do not embrace all the instances of extra-uterine gestation that came under my

care in Adelaide Ward during the period they cover, but they form so distinct and interesting a group that they may, with advantage, be studied by themselves.

For the convenience of the reader and to facilitate reference, I have prefixed, as a heading to each case, a short summary of its main features.

Case 1. *Slight hæmorrhage, followed by recurrent attacks of pain, in a married woman who, sixteen years after her last child, had missed two menstrual periods; distension of abdomen, with increase of pain and extreme tenderness; uterus displaced forwards, canal 3½ inches; diagnosis of ruptured tubal gestation; abdominal section: blood in peritoneal cavity; ruptured gestation—sac in left Fallopian tube; fœtus in abdominal cavity, attached by umbilical cord to placenta, which was partially protruded through the rent; right tube occluded and distended with mucus and altered blood; both tubes removed; peritoneum flushed; persistent vomiting for four days, latterly stercoraceous; pneumonia seventh day to eleventh; some suppuration from wound; recovery.* (From notes by Mr. Duke.)—Annie J—, æt. 37, married, an ironer in a laundry, residing in Lambeth, was admitted into Adelaide Ward at noon on the 25th of June, 1890, complaining of acute pain in the abdomen, with distension and intense tenderness.

Previous history.—The catamenia commenced at thirteen. The patient was married at twenty, and was confined of her first and only child when twenty-one. Labour was natural; patient was up on the ninth day and at work again in three weeks. Menstruation was re-established in six weeks, and from that time has been accompanied with pain, which, before marriage, it was not. For the last two years the flow has appeared irregularly, the intervals having been sometimes six weeks in length, at other times three months.

Eight years ago patient was laid up for fourteen weeks with acute rheumatism; she has never been well since.

Present illness.—After having missed two menstrual periods, she had a slight blood-stained discharge for two days, at the end of which time, namely, on the 11th of June, she was suddenly seized with severe pain whilst in the

act of micturating. She had to leave off work and go home. During the next ten days the pain continued sufficiently severe to keep her awake at night, but although she felt very ill she continued to get about in the daytime. She complained of headache, thirst, nausea, loss of appetite, and pain during micturition and defæcation. On June 19th she came to the casualty department of the hospital and, on the 21st, was entered as an out-patient and examined. The abdominal walls were too rigid for anything to be made out bimanually. The uterus, however, was felt to be displaced forwards and enlarged, and the sound showed the canal to be three inches and a half in length. When she reached home the pain had become so much worse that she was obliged to go to bed. The vomiting was relieved by the medicine, but in every other respect she became worse day by day, the pain spreading over the whole abdomen, and on the 25th, she was admitted as an in-patient.

State on admission.—A fairly well-nourished woman, with blanched appearance and anxious expression of countenance, lying on the back with knees drawn up, and complaining of severe pain all over the abdomen, which was greatly distended and tympanitic, and so excessively tender that the slightest touch caused her to cry out. Nothing abnormal could be detected on vaginal examination, and bimanual examination was altogether impracticable. The skin was hot and dry; temp. 100°; pulse 116; respirations 30, thoracic. Tongue moist, coated with white fur. Heart and lungs normal. Urine sp. gr. 1012, highly coloured, acid, free from albumen.

I saw her the following day. She had slept some hours during the night after a subcutaneous injection of morphia, but was evidently extremely ill. On learning the history, I came to the conclusion that the case was one of ruptured tubal gestation, and decided to open the abdomen as soon as the consent of the patient's husband had been obtained. The patient herself had not suspected that she was pregnant.

The following is the record of the temperature from admission up to the hour of operation :

June 25th, Noon	100°	26th, 8 a.m.	101°
4.30 p.m.	101·8	4 p.m.	100·8
8 p.m.	101·2	Midn.	100·2
Midn.	99·8	27th, 4 a.m.	100·6
26th, 4 a.m.	100	8 a.m.	102·8

Abdominal section was performed at 9.30 a.m. June 27th, Mr. Osburn assisting. An incision, three and a half inches in length, was made half way between the umbilicus and the symphysis pubis. On opening the peritoneum, there was a gush of thin dark blood, suggesting a wound of a large vein. No vein could be detected, and it soon became apparent that the flow came from within the peritoneal cavity. The opening was enlarged and blood poured out freely. On introducing the hand, a large, tense, oblong tumour was felt extending behind the uterus and right broad ligament; this was recognised as the Fallopian tube, occluded, distended with fluid, and attached to the parts around by recent and easily separated adhesions. The tube was enucleated without difficulty, and removed along with the normal right ovary. The contents of the distended tube proved to be a dark brown viscid fluid, consisting of mucus and altered blood.

The left appendages were now examined and brought into view. The tube was distended in its central portion, and rupture had taken place into the peritoneal cavity. Through the opening, which was $1\frac{1}{4}$ inches in length, the placenta was partially protruding. The placenta had a diameter of $2\frac{1}{4}$ inches, and attached to its margin was the umbilical cord, 2 inches in length and one line in diameter. A small fœtus, $2\frac{5}{16}$ inches long, attached to the other end of the cord, was lying in the abdominal cavity, in front of the intestines. All these parts gave off an offensive smell of commencing decomposition. There was no evidence of general peritonitis. The anæsthetist now announced that the patient was seriously collapsed, and the operation was concluded with all possible speed. The left broad ligament was transfixed, and the tube tied off and removed. The lower portion of the omentum, being thickened, and having blood-clot firmly adherent to it along its whole length, was tied in sections and removed.

The peritoneal cavity was irrigated with three gallons of hot solution of boric acid ; a number of small clots and a quantity of dark fluid blood being thus washed out. More fluid and clots were removed by sponging, and, a glass drainage-tube having been inserted, a large flat sponge was placed beneath the incision, and the silkworm gut sutures were introduced. On removing the sponge, it was found saturated with blood-stained fluid. There being, however, no appearance of fresh hæmorrhage, the sutures were tied, and the usual dry dressings applied.

The operation lasted an hour and a half. The patient, at its conclusion, was cold and her pulse was feeble and running. In about thirty minutes she became warm ; her pulse improved, and she perspired profusely. On regaining consciousness, she was sick, and complained of severe pain. A subcutaneous injection of morphia was therefore administered. This was repeated at 1.15 p.m. and at 4 p.m.

Next morning, the quantity of blood-stained discharge, which had been considerable the previous day, was much less. There was some abdominal distension with pain and vomiting. At 8 p.m. she passed some flatus.

At 1.45 a.m. on the 29th, there was vomiting of brown fluid with a stercoraceous odour. A little brown fluid also escaped from the rectum along with some flatus.

At 3 a.m. the patient passed six fluid ounces of urine naturally.

At 11 a.m. there was constant vomiting of brown fluid, with a distinctly fæcal odour. The drainage-tube was removed. Small doses of magnesium sulphate were ordered. There being no result after the second dose, an enema was administered at 7 p.m. The fluid returned, stained with fæces. At 8 p.m. there was constant vomiting, without effort, of yellowish, highly offensive fluid.

On June 30th the vomiting continued, but the fluid ejected became less offensive. An enema was administered at 10 a.m. with very little result. At 6.30 p.m. a castor-oil enema was given, with the result that a large quantity of flatus escaped with a little fæcal matter. After this, the vomiting ceased and the distension diminished.

On July 1st at 4 a.m. there was a slight spontaneous

action of the bowels, and four hours later the patient suddenly passed a large evacuation involuntarily into the bed. In the evening, there had been no return of the vomiting. The patient had been able to take barley-water freely, and some tea and bread and butter.

5th.—The stitches were removed. The patient was taking food well. The temperature having risen the previous afternoon and respiration having become rapid, the chest was examined. Crepitation and tubular breathing were heard at the base of the right lung, where there was also impaired resonance.

On the 7th the dulness was more marked, the breath-sounds were feeble and the voice sound œgophonic.

On the 10th patient was able to sit up whilst the chest was being examined; the dulness had diminished and the abnormal sounds on auscultation had disappeared.

On the 12th the abdomen was slightly distended, tympanitic, and painful. There was a slight discharge from the centre of the wound.

20th.—Some tenderness and pain over an indurated patch to the right of the upper part of the cicatrix.

26th.—Upper angle of wound reopened and exit given to a small quantity of thick pus.

August 5th.—Patient left the hospital with a small sinus at the lower angle of the incision, but otherwise well. She was to report herself in three weeks, but has not since been seen.

Temperature Record First Week after Operation.

	Temp.	Pulse.		Temp.	Pulse.
June 27, noon	100°	124	June 29, Noon	99°	136
4 p.m.	99·4	108	4 p.m.	101	128
8 p.m.	98·4	112	8 p.m.	101	130
Midn.	99	112	Midn.	100·4	124
28, 4 a.m.	98·4	130	30, 4 a.m.	99·8	120
8 a.m.	99·6	124	8 a.m.	100·2	128
Noon	99·6	130	Noon	99·2	120
4 p.m.	100	138	4 p.m.	100·2	124
8 p.m.	100·6	136	8 p.m.	100·8	130
Midn.	100·2	128	Midn.	100·2	128
29 8 a.m.	99·4	120			

	Temp.	Pulse.	Resp.
July 1, 4 a.m.	99°	120	24
8 a.m.	99·2	124	24
Noon .	98·8	110	26
4 p.m.	99	110	26
8 p.m.	99·8	116	26
Midn.	99·4	112	24
2, 4 a.m.	98·8	112	24
8 a.m.	98	108	22
Noon .	99·8	122	26
4 p.m.	99·6	112	28
8 p.m.	99·8	110	24
Midn.	99·4	108	26
3, 4 a.m.	99·2	104	

	Pulse.	Temp.	Resp.
July 3, 8 a.m.	99	102°	
Noon	99·4	104	28
4 p.m.	100·4	104	28
8 p.m.	100·2	92	28
Midn.	100·4	106	24
4, 4 a.m.	100	104	26
8 a.m.	100	100	
Noon .	99·6	104	
1.30 p.m.	101·4		
4 p.m.	102	109	34
8 p.m.	101·8	112	32
Midn.	101	106	30

Unless the bulk of the ovum is accidently increased by hæmorrhage (in which case the limits of the distensibility of the tube are reached at an earlier stage), rupture of the tube usually occurs between the eighth and twelfth weeks. In this case, two monthly periods had been passed when the first serious symptoms occurred, so that we may infer it to have been about the eighth week. The hæmorrhage accompanying the rupture was not so profuse as to lead to a rapidly fatal issue, and the alarming condition of the patient a fortnight later seems to have been due, not to the loss of blood, but to septicæmia, consequent upon absorption of the products of the decomposition which was taking place in the extravasated blood and in the contents of the ruptured gestation sac. It is a well-recognised fact that tubal gestation is often preceded by a long period of sterility. In this case sixteen years had elapsed since the last pregnancy ; in the next case the interval was four years. In neither instance was there any history of pelvic peritonitis, puerperal or non-puerperal, to account for the failure of the oviduct to fulfil its function.

The condition of the tube on the side opposite to that in which gestation had occurred, though by no means unusual under such circumstances, is worthy of more than a passing notice. It was occluded and distended, so as to form a large oblong tumour, its contents being mucus and altered blood. Whether this condition existed previously, or was in some way or other a consequence of the abnormal gestation, is a matter for speculation. The fact that a somewhat similar

condition of the opposite tube is often found in hæmatosalpinx is in favour of the latter supposition ; for all recent researches, especially those of Mr. Bland Sutton, tend to support the view that almost all cases of hæmatosalpinx are in reality cases of tubal gestation in which the ovum has become apoplectic, and, in consequence, more or less completely destroyed at a very early stage.

The complications and anxieties that attended the after-progress of the patient in this case, were in marked contrast to the uninterrupted recovery that usually takes place when the patient has no other symptoms than those due to profuse internal hæmorrhage. The septic condition that existed at the time of the operation fully accounted for the troubles that followed.

Case 2. *Slight hæmorrhage and pain for a month, after missing two monthly periods ; sudden aggravation of the pain with more severe hæmorrhage, and pyrexia ; ill-defined, firm swelling in lower part of the abdomen ; uterus retroverted, apparently normal in size ; diagnosis of ruptured tubal gestation ; abdominal section three days from commencement of acute attack : blood in peritoneal cavity, ruptured gestation-sac in right tube, containing fœtus, placenta, membranes, and blood-clot ; right tube and ovary removed after separating adhesions ; severe broncho-pneumonia ; bursting open of wound and escape of intestines, during a paroxysm of coughing, after removal of sutures ; intestines replaced and wound re-sutured ; slight suppuration from lower angle of wound for a few days ; recovery.* (From notes by Mr. T. H. Kellock.)—Emma B—, æt. 24, married, ironer in a laundry, residing in Bermondsey, was admitted into Adelaide Ward, September 1st, 1890, complaining of severe pain in the abdomen. She considered herself to be about three months advanced in pregnancy.

Previous history.—Married at the age of 19, *i. e.* five and a half years ago. She had borne but one child, eighteen months after marriage. The child was stillborn. Convalescence was uninterrupted. After that, patient menstruated regularly until May 1890, when her last normal period occurred. She missed her period in June, and again in July. Early in August she suffered a good deal of pain

in the lower part of the abdomen, and began to have a discharge of blood, attended with the passage of clots. The flow was considerable for a fortnight; during the second fortnight it was still present, but was slighter in amount. There was no sickness. Patient continued at her work until August 30th, when she was suddenly seized with hæmorrhage and a severe pain in the lower part of the abdomen. The pain continued the whole of the next day; vomiting also occurred, but only once.

On admission.—Patient is a thin, sallow-complexioned, ill-nourished woman. She lies on her right side, with her knees drawn up, and complains of severe abdominal pain. She has a troublesome cough, and her breathing is laboured.

Loud rhonchi are heard over the whole of both lungs. The heart sounds are normal. Pulse 124, small. Respirations 44 in the minute.

The whole abdomen is extremely tender; a firm, ill-defined swelling can be felt reaching from pubes upwards, half-way to the umbilicus. The uterus is retroverted, the cervix being directed forwards and the body felt posteriorly. The latter is hard, extremely tender, and fixed, but is not obviously enlarged. The sound not passed. Bimanual examination is impossible on account of the tenderness.

Mammæ tense and tender; no milk can be pressed out.

Urine, dark in colour, sp. gr. 1026, contains a deposit of mucus. No albumen or sugar.

Temperature.

September 1st, 3 p.m.	104°	September 2nd, 4 a.m.	99·4°
8 p.m.	103·4	5 a.m.	101·2
Midn.	100·4	9 a.m.	101·4

Ruptured tubal pregnancy being diagnosed, it was arranged to perform abdominal section without delay.

September 2nd, 9.30 a.m.—*Operation,* Mr. Osburn assisting. The peritoneal cavity contained a large quantity of blood, fluid and clotted. The parts in the pelvis were matted together, and the viscera in many places had blood-clot adhering to their surface. In the right Fallopian tube was found a ruptured cyst, the contents of which escaped

during the manipulation necessary to bring it to the surface. They consisted of blood-clot, placenta, membranes, and a fœtus, *minus* its head, which had become separated and was not found. The umbilical cord was in two parts; one portion being attached to the placenta, the other and longer portion to the fœtus.

The cyst having been completely separated from its surrounding adhesions, the broad ligament was transfixed and tied, and the tube and ovary were removed.

At this stage it was announced that the patient had ceased to breathe. She soon recovered, and the operation was proceeded with, chloroform being substituted for ether. There being some free bleeding, which did not come from the pedicle, the abdominal incision was enlarged upwards and downwards, until it measured 5 inches. No special bleeding point was discovered. The peritoneal cavity was therefore douched with hot solution of boric acid and well sponged. The lower edge of the great omentum being thickened, rolled up and infiltrated with blood-clot, was removed. The left tube and ovary were adherent, but otherwise appeared healthy; they were not disturbed. A glass drainage-tube was inserted, and the edges of the abdominal wound were brought together by means of nine sutures of silk-worm gut. The operation lasted an hour and three quarters.

Description of parts removed.—The fœtus (*minus* the head) measured three quarters of an inch in length and was softened. The limbs were formed. The placenta was broken up into several pieces. The fimbriated end of the tube was covered by adhesions. The uterine end was of normal diameter at the point where it had been divided. The distended portion of the tube was close to the uterine end and was three inches in length. The walls of the contained cyst were lined by shreds of blood-clot; it presented two openings, one ragged, the other crucial in shape. In the ovary there was a well-marked *corpus luteum* three quarters of an inch long. The divided tissues of the broad ligament were thickened and were seen to contain large blood-vessels.

The patient was somewhat collapsed at the close of the operation. In the afternoon, her cough became very

troublesome, and she eventually expectorated a quantity of ill-smelling muco-pus.

Temperature.

11 a.m.	99°	8 p.m.	100°
Noon	100·2	Midn.	99·4
4 p.m.	100·6		

September 3rd.—Much better; still expectorating thick purulent mucus. No sickness. Tube removed at 5.30 p.m.

Temperature.

4 a.m.	99·2°	4 p.m.	100·2°
8 a.m.	98	8 p.m.	101·4
Noon	98·4	Midn.	100·6

8th.—Stitches removed on account of a little redness around the suture-tracks. Later in the day (7 p.m.), during an attack of coughing, the edges of the wound burst asunder and the intestines protruded. The resident immediately returned the intestines and introduced fresh sutures, the patient being anæsthetised.

12th.—The sutures were removed and the wound made secure by plaster.

23rd.—Patient has had a very severe attack of broncho-pneumonia, attended with very profuse muco-purulent expectoration. There was a little suppuration from the lower angle of the wound from the 15th to the 22nd. To-day the condition is greatly improved, and there is scarcely a stain on the dressings.

October 5th.—Gaining flesh and moving about the ward. No dyspnœa; no rhonchus; bases clear; dulness and increased expiration at right apex; very slight amount of expectoration, muco-purulent in character. There has been no discharge from the wound for a week; all dressings discontinued.

7th.—On vaginal examination, the uterus was found normal in size and freely moveable; there was nothing abnormal to be felt in the sides of the pelvis.

10th.—Sent to a Convalescent Home, well.

Record of temperature, pulse, and respirations.

	Temp.	Pulse.	Resp.
September 4th .	99·4° to 102·2°	112 to 140	32 to 36
5th .	99·8 to 102·6	106 to 136	32 to 36
6th .	100 to 102·2	130 to 148	38 to 46
7th .	100 to 101·8	108 to 132	30 to 40
8th .	99·8 to 101·8	120 to 138	30 to 44
9th .	100·4 to 102·6	130 to 136	40 to 45
10th .	100·4 to 102·4	128 to 130	34 to 44
11th .	99 to 101·8	100 to 124	30 to 40
12th .	99 to 102	110 to 126	38 to 40
13th .	100 to 102	100 to 102	36 to 40
14th .	100 to 101·4	112 to 138	36 to 40
15th .	99·3 to 101·2	112 to 126	38 to 40
16th .	98·8 to 99·8		
17th .	98·4 to 100·4		
18th .	98·4 to 101·2		
19th .	98·8		

It is probable, from comparing the history in this case with the condition found on opening the abdomen, that hæmorrhage took place in the membranes, at about the eighth week, destroying the vitality of the ovum, and that, a month later, rupture of the tube occurred, with effusion of blood into the peritoneal cavity. As in the last case, symptoms of septicæmia were present when the patient was admitted, in addition to those of internal hæmorrhage. The temperature was 104°, the pulse 124 in the minute, and the number of respirations 44. Loud rhonchi were heard over the whole chest, and the patient had a very troublesome cough. It was not, therefore, surprising that, again convalescence was interrupted. The patient developed a severe attack of broncho-pneumonia, and, as if that alone were not a sufficient cause for anxiety, on the day the sutures were removed the recently-united abdominal wound suddenly gave way along its whole length, during a paroxysm of coughing, and when the house physician reached the bedside, a number of coils of intestine were found to have escaped, and were lying exposed outside the abdomen. Thanks to this officer's promptitude, no harm resulted from this unfortunate incident, and the patient was well and able to leave the hospital in less than six weeks after the operation.

Case 3. *Recurrent attacks of pelvic pain for two months with absence of menstruation; no previous pregnancy for seven years; sudden attack of severe abdominal pain with discharge of clots* per vaginam; *uterus enlarged, canal four and a half inches in length; soft swelling in Douglas's pouch, rounded, not very tense, connected with left uterine appendages; abdominal section; left Fallopian tube elongated and adherent fimbriated extremity dilated into a cyst, which had become adherent in Douglas's pouch, and contained, besides blood-clot, an ovum with chorionic villi over its entire outer surface, and a distinct amniotic cavity; umbilical cord found, but no fœtus; right tube occluded, enlarged, and adherent; corpus luteum in each ovary in different stages of development; both tubes removed with the ovaries; decidual cast of the uterine cavity passed the day after operation; uninterrupted recovery.* (From notes by Mr. Cuthbert Wyman.)—Harriet O—, æt. 27, married, a dressmaker, residing in Walworth, was admitted into Adelaide Ward, March 16th, 1891.

She was married to her first husband when she was seventeen, and to her second, three years ago. Her only child was born seven years ago; she has had no miscarriages.

Her present illness began early in January, when she had a profuse flow at her menstrual period and great pain. She has not menstruated since. She has had attacks of pain during the past two months at intervals of a few days. During the past fortnight the pain has been almost constant, and has been especially severe during coïtus. She never had any puruleut vaginal discharge. Two or three times during the last week or two she has observed a little discharge of mucus. She attended at the out-patient department on March 14th on account of constant pain in the left iliac region. The following note was then made: "Uterus felt above pubes, slightly enlarged and flaccid, cervix directed backwards. In Douglas's pouch is a rounded swelling, firm, not very tense, connected with the left cornu of the uterus by a broad tense band." Two days later she was suddenly seized, whilst cleaning a pair of boots, with a very severe pain in the lower part of the abdomen, and an urgent desire to pass water. When she had relieved the bladder, she

found that she had passed two dark blood-clots. Fearing that she had had a miscarriage, or was about to have one, she came up to the hospital, where she was at once admitted.

On admission, the uterus was measured and found to be four and a half inches in length, the tap of the sound being felt four inches above the crest of the pubes, and three and a half inches below the umbilicus. The retro-uterine swelling was still present.

The diagnosis was either recent abortion with cystic disease and prolapse of left ovary, or extra-uterine gestation.

On March 23rd abdominal section was performed, Mr. Carter assisting.

The pelvic contents were found matted; the uterus enlarged. The left tube, long and expanded, was traced outwards, and then downwards, backwards, and inwards to a soft swelling in Douglas's pouch. The tube, having been separated from its adhesions and brought into view, was ligatured and removed. The removed portion measured four inches; its outer end was open and the margin torn. On attempting to remove the cystic swelling in Douglas's pouch, the thin wall gave way and the finger passed into some dark clot, which was removed, along with an ovum, equal in size to a walnut, with a distinct amniotic cavity, and covered over its entire outer surface with chorionic villi. An umbilical cord was found, but no fœtus. The ovary was now shelled out, with the torn cyst, which had contained the ovum and blood-clot. The cyst proved to be the expanded fimbriated end of the left tube, from which the portion of tube already removed had been torn away. The removal was executed with much difficulty, owing to the firm adhesions and friable nature of the sac. The ovary contained a corpus luteum, with a distinct yellow lining. There was some fairly free hæmorrhage until the pedicle was secured.

The tube and ovary of the opposite side were universally adherent, and being both enlarged, and the tube occluded, were removed. The removed portion of the tube was at least twice its normal size; it measured 4½ inches in length; its mucous lining was greatly congested; its muscular walls were not thickened. The ovary contained a large

corpus luteum, with thick wall, not pigmented, and dark central clot.

The peritoneal cavity was douched, a glass drainage-tube was inserted, and the edges of the incision were brought together by sutures.

The operation lasted an hour and a half. No sickness followed and the tube was removed in twenty-five hours. On the 24th, *i. e.* the day after the operation, a thick decidual membrane, forming an entire cast of the uterine cavity, was expelled *per vaginam*. The patient made a rapid and uninterrupted recovery. The sutures were removed on March 31st. The patient left her bed on April 11th, and went home well on the 22nd.

She was last seen on February 20th, 1892. She had not menstruated since the operation, and was complaining of "flushes" and palpitation. She had gained flesh, however, and looked remarkably well. The uterus was small and freely moveable, and both posterior quarters of the pelvis were perfectly empty.

The first two cases were diagnosed before operation, with comparative ease and certainty. When rupture and extravasation have taken place, the diagnosis, indeed, seldom presents serious difficulty. But it is far otherwise in cases of early tubal gestation, where rupture has not yet occurred, and the one here recorded was no exception to the rule. When I opened the abdomen, I was not sure whether I should find a tubal gestation, or a cystic ovary. I knew that the uterus was enlarged and empty, and that there had been a considerable amount of uterine hæmorrhage, but whether this enlargement and hæmorrhage were merely symptomatic of extra-uterine pregnancy, or were the consequence of a normal pregnancy terminating in abortion, I did not feel competent to decide. Indeed, I am inclined to think that, even with this case fresh in my mind, I should, if a similar case were to present itself tomorrow, again hesitate to give a positive diagnosis. Had the decidual membrane been good enough to come away the day *before* the operation, instead of the day *after*, the diagnosis would of course have been established beyond dispute.

With regard to the propriety of operating in suspected cases of unruptured tubal gestation, I have elsewhere expressed my conviction that where the diagnosis is satisfactorily established, the only proper and adequate treatment is abdominal section. For although the patient may, by a bare possibility, pass through the perils and dangers of extra-uterine gestation without losing her life, the chances are so tremendously against her, that no woman ought to be permitted to run such a risk without at least having had an opportunity of submitting to an operation, which experience has shown to be in itself singularly free from danger.